

comprising a surface layer incorporating the antimicrobial compound. This additional limitation has a basis at page 5, lines 24-27 of the specification.

As detailed in the response to the first Office Action, U.S. Patent No. 6,313,178 is specific to treatment of cancer, and as indicated by the Examiner, fails to teach the use of hydrogenated lupulones or derivatives in the context of the present invention. While the Examiner indicates that U.S. Patent No. 6,313,178 teaches topical application of such compounds, it must be noted that such usage is indicated as being for the specified purpose of killing cancer cells or inhibiting their growth through the use of certain beta acids, and that the use thereof for this purpose is dependent upon the delivery system being capable of penetrating each layer of skin.

In contrast, the present invention is directed to the inhibiting of bacterial growth upon the surface of the skin or on a skin wound by way of a surface layer incorporating the antimicrobial compound, thus not dependent upon transdermal penetration. The topical ointments, creams and lotions taught in U.S. Patent No. 6,313,178 are far different from the dry surface layer used in the present invention to inhibit bacterial growth, and the transdermal patches taught in U.S. Patent No. 6,313,178 are for the transdermal penetration of compounds. Applicants submit that it would be neither taught nor obvious to one skilled in the art that application of the claimed compounds to liquids in contact with infants by way of a surface layer incorporating the claimed compounds would be beneficial, especially for inhibition of toxic shock syndrome.

U.S. Patent No. 6,183,763 does not mention diapers and therefore, does not make up for the deficiencies in U.S. Patent No. 6,313,178.

The remaining references of record, U.S. Patent Nos. 6,284,261, 6,262,038 and 5,840,760, also do not make up for the deficiencies in U.S. Patent No. 6,313,178 as discussed in the 3/13/2002 response to the first Office Action.

Therefore, it is submitted that amended claims 1 and 4, and claims 2-3 and 5 that depend thereon, are in condition for allowance.

Conclusion

It is believed that the entire application has been placed in condition for allowance. Favorable reconsideration is respectfully requested. No additional fees are believed to be needed for this amendment. However, if additional fees are needed, please charge them to Deposit Account No. 17-0055.

Respectfully submitted,

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**Version with markings to show changes made**

IN THE CLAIMS:

- 1. (Twice Amended) A method for inhibiting the growth of *Staphylococcus aureus* and toxic shock syndrome toxin-1 in liquids in contact with infants, said method comprising the step of:
- diapering the infant with a dry diaper comprising a surface layer incorporating an effective amount of an antimicrobial compound selected from the group consisting of tetrahydroiso-alpha acids, hexahydro-beta acids, and mixtures thereof. --
- 4. (Twice Amended) A dry diaper [containing] comprising a surface layer incorporating an antimicrobial compound selected from the group consisting of tetrahydroiso-alpha acids, hexahydro-beta acids, and mixtures thereof, said antimicrobial compound being effective against toxic shock syndrome. --